Preface

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Conventions

The following conventions are used throughout this manual.

NOTICE *Text set off in this manner indicates key information that you should pay attention to.*

CAUTION *Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.*

WARNING *Text set off in this manner indicates that failure to follow these directions could result in bodily harm or loss of life.*

Safety Information

Please read the following safety instructions and keep the user manual for later reference.

- Use only the power adapter supplied with the product.
- Do not place the product near any source of heat or expose it to direct sunshine.
- Do not attempt to connect any computer accessory or electronic product without instruction from qualified service personnel. It may result in risk of electric shock.
- Do not expose the product to moisture. Never spill any liquid on the product.
- Do not place the Mini VCR where the temperature is less than -10° C (14° F) or greater than 60° C (140° F).

Routine care

Wipe the Mini VCR with a soft cloth. Do not use abrasive powders or solvents, such as benzene or thinners. When you leave the Mini VCR unused for a long time, unplug the AC adapter from the outlet.

Contents

1 Overview 1
1.1 Features 1
1.2 System Requirements 2
1.3 Unpacking 2
1.4 The Mini VCR 3
1.4.1 Front View 3
1.4.2 Rear View 3
1.5 The Remote Control 4
1.5.1 Top View 4
1.5.2 Bottom View 4

2 Getting Started 5
2.1 Making Connections 5
2.1.1 Connecting the Power 5
2.1.2 Connecting to a Television 6
2.1.3 Connecting to a TV tuner or VCR 7
2.1.4 Connecting to a DVD, VCR or Camcorder 8
2.1.5 Connecting to a Personal Computer 9
2.1.6 Inserting and Removing a Compact Flash (CF) Card 10
2.1.7 Inserting and Removing a Secure Digital (SD) Card 11
2.2 Viewing Media Files 12
2.2.1 Viewing still pictures 12
2.2.2 Viewing Videos 14
2.2.3 Listening to Audio Files 16

3 Using the Mini VCR 18
3.1 Accessing the On Screen Interface 18
3.1.1 Selecting files 20
3.1.2 Changing the storage media 20
3.2 Main Player Setup Menu 21
3.2.1 TV Out 21
3.2.2 Date and Time 22
3.2.3 Disk Copy 23
3.2.4 Upgrade 23
3.2.5 Format 23
3.3 Playing Videos 25
3.3.1 Video Player Setup Menu 26
3.3.2 Repeat 27

3.3.3 Lock and Unlock 27
3.3.4 Delete 27
3.3.5 Copy File 28
3.3.6 Using the Mini VCR to Play MPEG-4 Video 28
3.4 Using the Mini VCR to Display Images 29
3.4.1 Special Effects 30
3.4.2 Image Browser Setup Menu 31
3.4.3 Slide 32
3.4.4 Lock and Unlock. 32
3.4.5 Delete 33
3.4.6 DPOF 33
3.4.7 Copy File 34
3.5 Using the Mini VCR to Play Audio 35
3.5.1 Music Player Setup Menu 36
3.5.2 Repeat 37
3.5.3 Lock and Unlock 38
3.5.4 Delete 38
3.5.5 Copy File 39
3.6 Using the Mini VCR to Record Video 40
3.6.1 Video Record Setup 41
3.6.2 Quality 42
3.6.3 Auto Record 43
3.7 Using the Mini VCR to record TV programs 44
3.7.1 Recording from your television. 44
3.7.2 Recording from a TV tuner or VCR. 45
3.8 Using the Mini VCR as a Card Reader 46
3.9 Viewing files on a pocket PC or mobile phone. 46

Appendix 47

Specifications 47

Upgrading the Firmware 49

FCC Certification 50

Troubleshooting 51

Chapter 1: Overview

The Mini VCR is an MPEG-4 recorder and player that enables anyone to make home movies. Record your favorite TV shows, personal home video, or videos (VHS, VCD, DVD, Hi8, or DV) onto a flash memory card or Magicstor™ CF type II 2.2 GB hard drive. Play your prerecorded full-motion, full-color videos on a PC, TV, or Pocket PC based PDA. In addition, the Mini VCR is a super high fidelity MP3/AAC player. The Mini VCR's elegant design makes it look great on your desk and easy to use.

1.1 Features

- **Image Browser** - View digital images on your television with the built-in Image Browser.
- **Video Recorder** - Record video from your video camera, VCR or DVD player. Videos are stored in the Advanced Systems Format (ASF). ASF movie files can also be played with Windows Media Player 7 or above. Windows Media Player is included free with Microsoft Windows.
- **Video Player** - The video player is MPEG-4 compatible and will also play AVI and ASF files.
- **Music Player** - The audio player is MP3 compatible.
- **USB Card Reader** - The Mini VCR simultaneously supports Compact Flash (CF) and Secure Digital (SD) cards. Each card appears as a separate removable disk in Windows Explorer.
- **Compact and Portable Design** - The Mini VCR is small enough to fit in your pocket.
- **Flexible** - The Mini VCR can be used with a PC, Stereo System, Television, VCR, DVD player or Video Camera.

1.2 System Requirements

Ensure that the following requirements are met:

- USB 2.0 interface on your PC
- Microsoft Windows XP, 2000, ME, or 98 (drivers are required for Windows ME and 98)
- Compact Flash (CF) or Secure Digital (SD) card (one or more)
- Audio video system with RCA compatible input and output

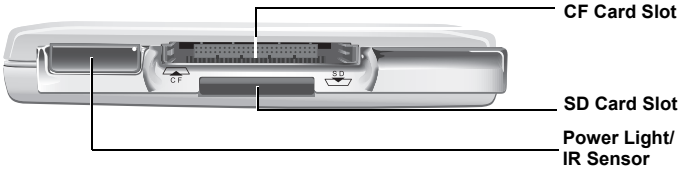
1.3 Unpacking

Contact your supplier if any of the following items are damaged or missing.

- Mini VCR
- Remote Control with Battery
- RCA to Mini-plug Cables (x2)
- USB Cable
- AC Power Adapter
- User Manual
- CD-ROM

1.4 The Mini VCR

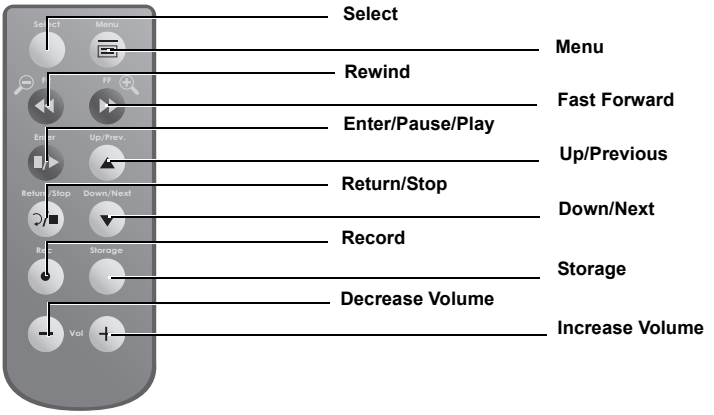
1.4.1 Front View



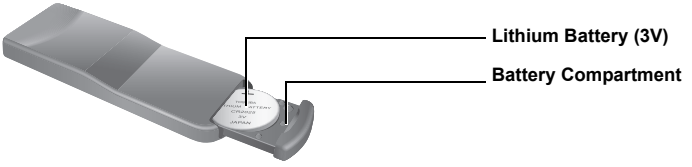
1.4.2 Rear View

1.5 The Remote Control

1.5.1 Top View



1.5.2 Bottom View



Chapter 2: Getting Started

This chapter covers how to connect your Mini VCR to other equipment and view media files for the first time.

2.1 Making Connections

Read this chapter to learn how to:

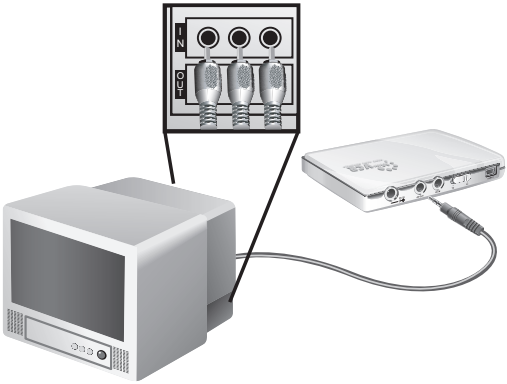
- Connect the power to your Mini VCR
- Connect your Mini VCR to a television
- Connect your Mini VCR to a DVD, VCR or camcorder
- Insert or remove a memory card
- Connect your Mini VCR to a computer

2.1.1 Connecting the Power

1. Insert the connector (**A**) of the supplied DC power adapter into the **DC 5V** connector on the Mini VCR.
2. Insert the power adapter (**B**) into a wall socket.

	NOTICE *When connecting the Mini VCR to a personal computer or notebook computer, it is not necessary to connect the power adapter.*

2.1.2 Connecting to a Television



The Mini VCR supports NTSC and PAL standards. See **Section 3.2.1, "TV Out" on page 21** for a detailed explanation of the PAL and NTSC standards.

To connect the Mini VCR to a television to view still images or video:

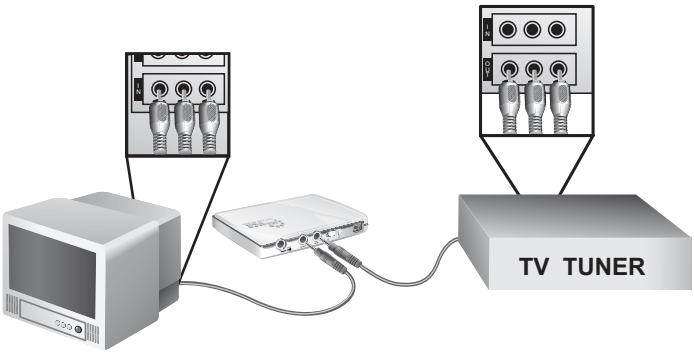
1. Connect the power adapter to the **DC 5V** socket on the Mini VCR.
2. Connect the AV cable to the **AV OUT** socket on the Mini VCR.
3. Connect the corresponding Video (Yellow) connector of the AV cable into the video input on your television.
4. Connect the Audio Right (Red), and Audio Left (White) connectors to the corresponding inputs on your stereo system.
5. Set the **TV/PC** switch to **TV**.

To connect the Mini VCR to a television for recording:

6. Connect a second AV cable from the AV IN socket on the Mini VCR
7. Connect the corresponding Video (Yellow), Audio Right (Red) and Audio Left (White) connectors, on the other end of the AV cable, to the AV OUTs of your television..

	NOTICE *This requires your television to have a set of AV OUTs. If you do not, you will need to use something that is able to receive TV signals such as a TV tuner or VCR*

2.1.3 Connecting to a TV tuner or VCR

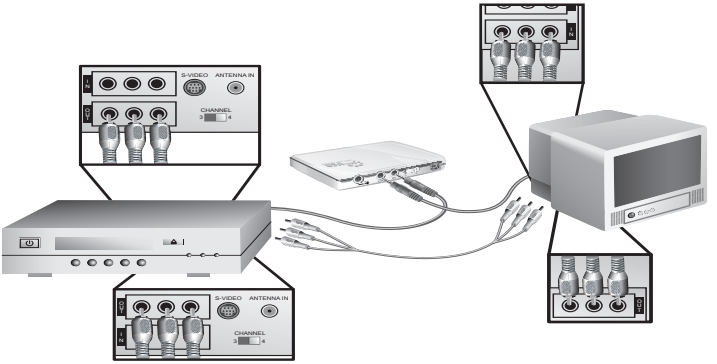


Connecting to a TV tuner

To connect the MiniVCR to a TV tuner or VCR for recording television programs.

1. Connect the Mini VCR to a television for recording as described in **Section 2.1.2, “Connecting to a Television” on page 6**.
2. Instead of connecting the corresponding Video (Yellow), Audio Right (Red) and Audio Left (White) connectors, on the other end of the AV cable, to the AV OUTs on your television, connect them to your TV tuner or VCR. Also see **Section 2.1.4, “Connecting to a DVD, VCR or Camcorder” on page 8.**

2.1.4 Connecting to a DVD, VCR or Camcorder



To connect the Mini VCR to record video from a VCR, DVD or camcorder:

1. Connect the Power Adapter to the **DC 5V** socket on the Mini VCR.
2. Insert the AV cable to the **AV IN** socket on the Mini VCR.
3. Insert the corresponding Video (Yellow), Audio Right (Red), and Audio Left (White) connectors at the other end of the AV cable, to the video and audio outputs on your DVD, VCR or camcorder equipment.
4. Set the **TV/PC** switch to **TV**.

Connecting to a camcorder:.

Connecting to a camcorder allows you to record movies directly to your Mini VCR.

2.1.5 Connecting to a Personal Computer

1. Insert a Compact Flash (CF) card or Secure Digital (SD) card into the Mini VCR.
2. Insert the small end of the USB cable into the Mini VCR USB 2.0 port.
3. Insert the large end of the USB cable into the USB 2.0 port on your computer.
4. Set the **TV/PC** switch to **PC**.

	NOTICE *When connecting the Mini VCR to a personal computer or notebook computer, it is not necessary to connect the power adapter.*

When the Mini VCR is connected to a PC or notebook PC, each memory card inserted into the device appears as a *removable disk* in Windows Explorer. Files stored on the Mini VCR can be accessed in the same way as files on any other available disk.

2.1.6 Inserting and Removing a Compact Flash (CF) Card

NOTICE *Turn off the power before inserting or removing a CF card.*

To insert a CF card:

1. Position the Compact Flash Card so that the pin-hole connections are facing the Mini VCR. Place the card label side up.
2. Slide the card gently into the CF card slot and press it firmly into place.

To remove a CF card:

To remove a CF card, gently pull the card out of the slot.

2.1.7 Inserting and Removing a Secure Digital (SD) Card

NOTICE *Turn off the power before inserting or removing an SD card.*

To insert an SD card:

1. Position the Secure Digital Card so that the angled corner is on the right and facing the Mini VCR. Place the card label side up.
2. Slide the card gently into the Secure Digital card slot until it clicks.

To remove an SD card:

1. Lightly press on the card until it clicks.
2. Release the card and it will spring out.
3. Gently pull the card straight out of the slot.

2.2 Viewing Media Files

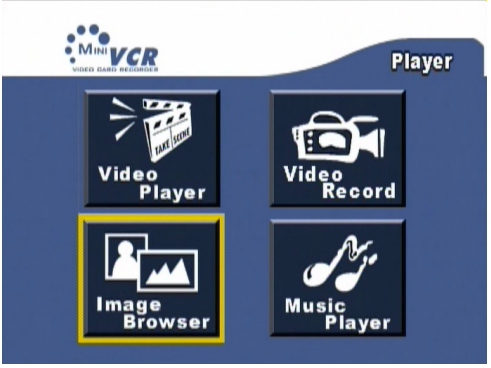
This section describes how to play videos, audio files and view still pictures on a television.

2.2.1 Viewing still pictures

1. Make sure that your Mini VCR is connected to a television and/or audio system and is powered up as described in **Section 2.1, "Making Connections" on page 5**.
2. Switch the Mini VCR **PC/TV** switch to **TV**.

Splash Screen

A splash screen will be displayed for about 10 seconds. When the splash screen has disappeared, the **Player** menu will appear.



Player Menu

3. Use the ▲, ▼, ◀◀ and ▶▶ buttons on the remote control to highlight the **Image Browser** icon and use the ▶/■ button to confirm your selection. The **Image Browser** will be displayed.

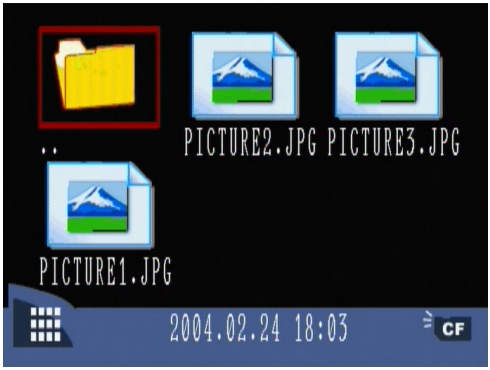


Image Broswer

The Image Browser will display thumbnails of all the displayable images and any subdirectories that exist.

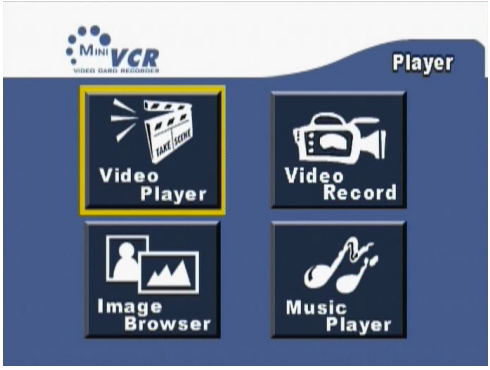
4. Use the ▲, ▼, ◀◀, and ▶▶ buttons on the remote control to highlight an image or a subdirectory. Use the ▶/■ button to confirm your selection. If an image is selected it will be displayed. If a subdirectory is selected, its contents will be displayed.
5. To return to a parent directory, highlight the .. directory icon and press the ▶/■ button on the remote control to confirm your selection.

2.2.2 Viewing Videos

1. Make sure that your Mini VCR is connected to a television and/or stereo system and is powered up as described in **Section 2.1, "Making Connections" on page 5**.
2. Switch the Mini VCR **PC/TV** switch to **TV**.

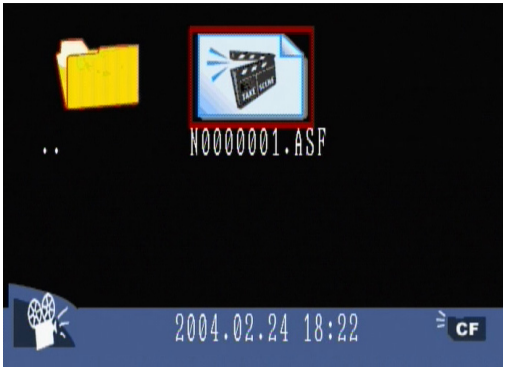
Splash Screen

A splash screen will be displayed for about 10 seconds. When the splash screen has disappeared, the **Player** menu will appear.



Player Menu

3. Use the , , and buttons on the remote control to highlight the **Video Player** icon and use the button to confirm your selection. The **Video Player** will be displayed.



Video Player

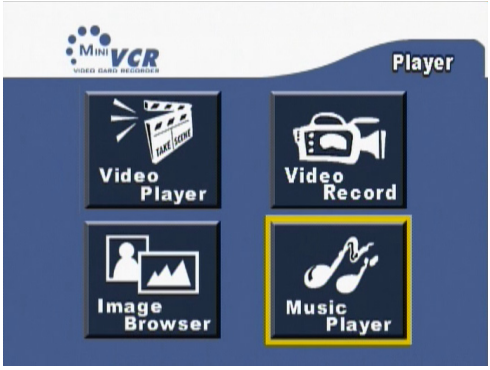
4. Use the , , , and buttons on the remote control to highlight a video to play or a subdirectory. Use the button to confirm your selection. If a video file is selected it will play. If a subdirectory is selected, its contents will be displayed.
5. Use the , , , and buttons on the remote control to fast forward, rewind, stop, play or pause the video.
6. To return to a parent directory, highlight the .. directory icon and press the button on the remote control to confirm your selection.

2.2.3 Listening to Audio Files

1. Make sure that your Mini VCR is connected to a television and/or stereo system and is powered up as described in **Section 2.1, "Making Connections" on page 5**.
2. Switch the Mini VCR **PC/TV** switch to **TV**.

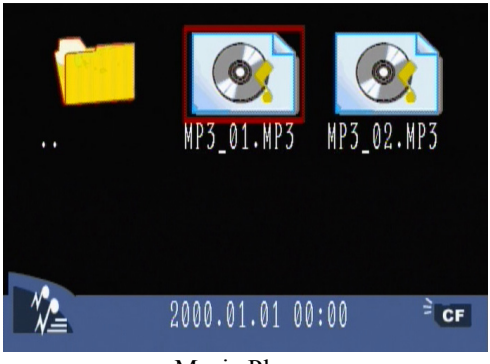
Splash Screen

A splash screen will be displayed for about 10 seconds. When the splash screen has disappeared, the **Player** menu will appear.



Player Menu

3. Use the ▲, ▼, ◀◀, and ▶▶ buttons on the remote control to highlight the **Music Player** icon and use the ▶/■ button to confirm your selection. The **Music Player** will be displayed.



Music Player

4. Use the ▲, ▼, ◀◀, and ▶▶ buttons on the remote control to highlight an audio file to play or a subdirectory. Use the ▶/■ button to confirm your selection. If an audio file is selected, it will play. If a subdirectory is selected, its contents will be displayed.
5. Use the ▶▶, ◀◀, ▷/■, and ▶/■ buttons on the remote control to fast forward, rewind, stop, play or pause the audio playback.
6. To return to a parent directory, highlight the .. directory icon and press the ▶/■ button on the remote control to confirm your selection.

Chapter 3: Using the Mini VCR

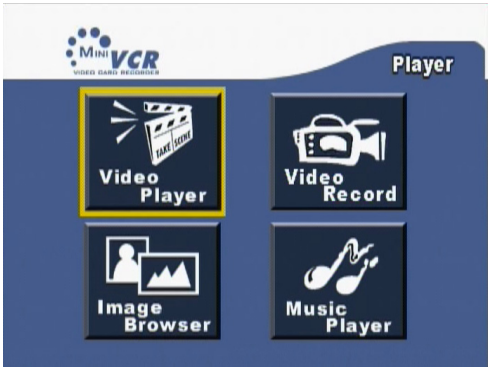
The Mini VCR On Screen Interface provides a convenient way to create, manage, and view your image, audio, and video files. Read this chapter for more details.

3.1 Accessing the On Screen Interface

1. Make sure that your Mini VCR is connected to a television and/or stereo system and is powered up as described in **Section 2.1, "Making Connections" on page 5**.
2. Set the **TV/PC** switch to **TV**.

Splash Screen

A splash screen will be displayed for about 10 seconds. When the splash screen has disappeared, the **Player** menu will appear.



Player Menu

3. Use , , , and buttons on the remote control to move the yellow cursor to one of the four options: **Video Player**, **Video Record**, **Image Browser**, or **Music Player**.

4. To confirm your selection, press .

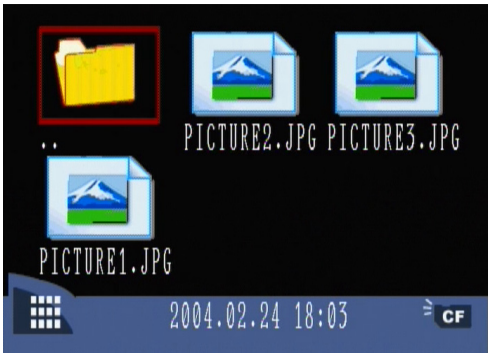


Image Browser

If **Video Player**, **Image Browser**, or **Music Player** is chosen from the **Player** menu, you will be presented with a display representing the file system on the currently selected media (CF/SD). Only the files that can be played or displayed will be visible along with subdirectories.

5. Use the and buttons on the remote control to move the red cursor around the page.
6. Use the and buttons to move through pages or full screens of files.
7. Press to display or play the selected file.
8. Press when a directory is selected to display the contents of that directory.
9. Highlight the .. directory and press to return to a parent directory.
10. Press to exit the directory view and return to the **Player** menu.

3.1.1 Selecting files

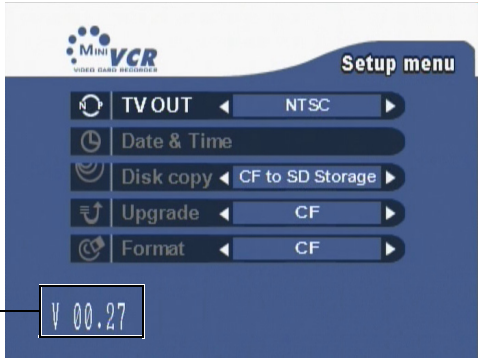
Sometimes you may want to select multiple files, for example when copying a large number of files from one memory card to another. Pressing the **Select** button on the remote control will mark the current file with a pink border indicating that the file is part of a multiple selection. Pressing the **Select** button again will deselect it.

3.1.2 Changing the storage media

Pressing the **Storage** button on the remote control while in **Image Browser**, **Video Player** or **Music Player** will toggle the active memory card between SD and CF. If one card is not available, you will see the message “Device doesn’t exist!” in place of a directory. If the media is available, but contains no files or directories, you will see the message “No Related File!” in place of a directory.

3.2 Main Player Setup Menu

Press the **Menu** button on the remote control while the **Player** menu is displayed to display the Setup menu. You can also press the **Menu** button from the splash screen.



Setup menu

Use the and buttons on the remote control to navigate around the Setup Menu. Use the and buttons to toggle the selection and the button to confirm a selection. Press the button to return to the **Player** menu.

The current version of firmware for the Mini VCR is displayed in the lower left corner of the Setup Menu. New versions of firmware may become available and this information will help you to determine when to update the Mini VCR.

3.2.1 TV Out

Use the **TV Out** menu item to toggle the Mini VCR between NTSC and PAL television standards.

NTSC (National TV Standards Committee) is a color TV standard developed in the U.S.A. An NTSC signal consists of 30 interlaced frames per second with 525 lines per frame. NTSC is used in Canada, the U.S.A, Japan, South Korea, Taiwan and several Central and South American countries.

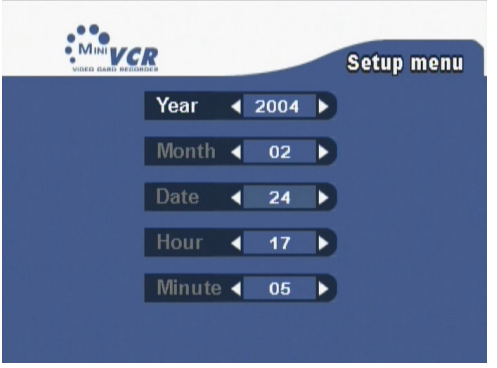
PAL (Phase Alternating Line) is a color TV standard that was developed in Germany. A PAL picture consists of 25 interlaced frames per second with 625 lines per frame. PAL is used throughout Europe and China, and in some African, South American and Middle Eastern countries.

To switch between PAL and NTSC:

1. Enter the Setup menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **TV Out** option.
3. Use the ◀◀ and ▶▶ buttons to toggle the selection between NTSC and PAL.
4. Press the ▶II button to confirm your selection.

3.2.2 Date and Time

1. Enter the Setup menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **Date & Time** option and press ▶II to confirm your selection. The Date & Time menu is displayed.



Date & Time

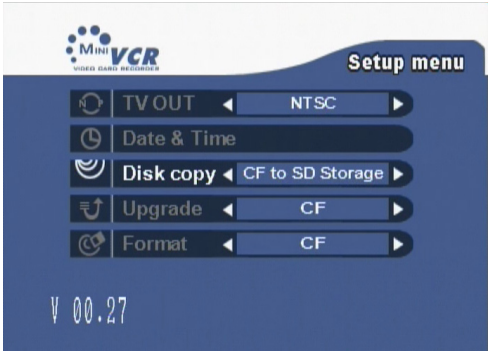
3. Use the ▲ and ▼ buttons to navigate to each option in the **Date & Time** menu, and use the ◀◀ and ▶▶ buttons to toggle the selection.

4. Press the button to confirm the selection or the button to return to the **Setup Menu** without saving any changes.

3.2.3 Disk Copy

Use **Disk Copy** to move the entire contents of one memory card to a folder on the other memory card. You can copy from CF to SD or from SD to CF.

1. Enter the Setup menu as described above.
2. Use the and buttons to highlight the **Disk Copy** option.
3. Use the and buttons to toggle between **SD to CF Storage** and **CF to SD Storage** options**.**



Disk Copy

4. Press the button to confirm the selection.
5. A *wait* screen is displayed while the operation is carried out.

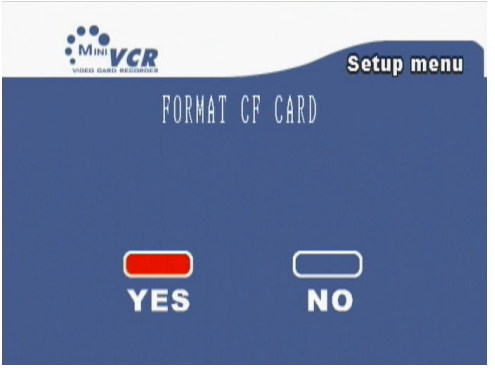
3.2.4 Upgrade

See the section **"Upgrading the Firmware" in the Appendix** for details on how to use the upgrade option.

3.2.5 Format

Use **Format** to format the memory card in either the CF or SD card slot. Formatting will delete all information on the card. Once formatted, the data can not be recovered. Make sure all data is backed up before formatting.

1. Enter the Setup menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **Format** option.
3. Use the ◀◀ and ▶▶ buttons to toggle between **SD** and **CF.** Make sure that you choose the right memory card to format. Choosing the wrong card will result in the wrong memory card being formatted and therefore a possible loss of data.
4. Press the ▶/■ button to confirm the selection.
5. Use ◀◀ and ▶▶ to toggle between **Yes** and **No** to confirm that you want to format the card.



Format CF Card

6. Press ▶/■ to confirm your choice. A *wait* screen is displayed while the operation is carried out.

3.3 Playing Videos

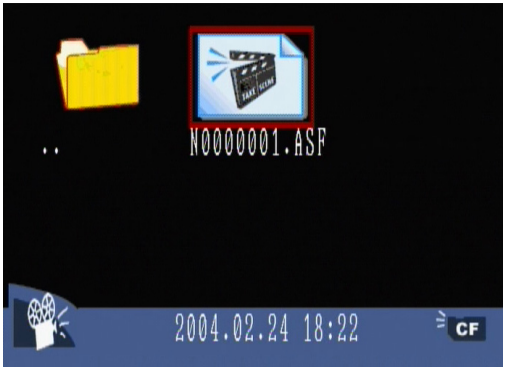
Your Mini VCR can play full motion video on your television. Video files must be ASF or AVI type.

NOTICE

ASF: ASF files are created by your Mini VCR when you record video from a camcorder or other device.

AVI: AVI files are MPEG4 SP (simple profile) format, with resolution of up to 320 x 240 pixels. Audio on AVI files is MP3.

1. Connect your Mini VCR to your TV and/or stereo and enter the **Player** menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
2. Use the ▲ and ▼ buttons to highlight the **Video Player** option and use the ▶|| button to confirm your choice. The **Video Player** will be displayed.
3. Use the ▲ and ▼ buttons to highlight the file that you wish to play or a subdirectory.



Video Player

4. Use the ▶|| button to confirm your selection. If a video file is selected, it will be played. If a directory is selected, it's contents will be displayed.

While a video is playing, the following functions are available:

Pause

and Rewind and Fast Forward

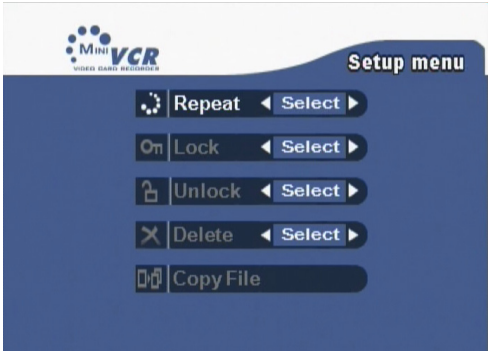
and Play previous or next file in directory

and Volume control

Return to parent directory

3.3.1 Video Player Setup Menu

The **Setup Menu** for the **Video Player** provides standard functions such as repeat play, lock, unlock, delete, and copy video files.



Video Setup Menu

1. Enter the **Video Setup** menu using the button on the remote control from the **Video Player.**
2. Use the and buttons to highlight the required option.
3. Use the and buttons to toggle settings for each option.
4. Use the button to confirm your selection.
5. Use the button to return to the directory view.

3.3.2 Repeat

Use the **Repeat** function to repeat play all video files or a selection. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files. You can also play a random selection with the **shuffle** option.

1. Enter the **Video Setup** menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **Repeat** option.
3. Use the ◀◀ and ▶▶ buttons to toggle between **All, Select** and **Shuffle** options.
4. Use the ▶|| button to confirm your choice

3.3.3 Lock and Unlock

The **Lock** function is used to protect files from accidental deletion. The **Unlock** function is used to remove this protection.

1. Enter the **Video Setup** menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **Lock** or **Unlock** option.
3. Use the ◀◀ and ▶▶ buttons to toggle between **All** and **Select** settings.

Choosing the **All** setting locks or unlocks all video files. Using the **Select** option will lock or unlock just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

4. Use the ▶|| button to confirm your choice.

3.3.4 Delete

The Delete option allows you to delete all files or just selected files from the Video Player. When files have been deleted they cannot be recovered.

1. Enter the **Video Setup** menu as described above.
2. Use the ▲ and ▼ buttons to highlight the **Delete** option.
3. Use the ◀◀ and ▶▶ buttons to toggle between **All** and **Select** options.

Choosing the **All** option deletes all video files. Using the **Select** option deletes just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

4. Use the button to confirm your selection.

3.3.5 Copy File

Use the **Copy File** option to copy video files to either the CF or SD card. This option is used to copy either all files or a predefined selection.

1. Enter the **Video Setup** menu as described above.
2. Use the and buttons to highlight the **Copy File** option. Use the button to confirm your choice and enter the **Copy File** submenu.
3. In the **Copy File** submenu, use the and buttons to highlight the **Copy** option.
4. Use the and buttons to toggle between **All** and **Select** options.

Use the **All** option to copy all video files and use the **Select** option to copy a predefined selection of files. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

5. Use the button to confirm your choice.
6. Use the and buttons to highlight the **Copy to** option.
7. Use the and buttons to toggle between **CF** and **SD** options.
8. Use the button to confirm your choice.

The selected files will be copied to the chosen destination.

3.3.6 Using the Mini VCR to Play MPEG-4 Video

The Mini VCR can be used to play MPEG-4 format video. MPEG-4 files can be placed on either SD card or CF card. See **Section 3.8, "Using the Mini VCR as a Card Reader" on page 46**. The MPEG-4 file can then be played as described in **Section 3.3, "Playing Videos" on page 25**.

3.4 Using the Mini VCR to Display Images

The Mini VCR can display images, such as those captured with a digital camera, on your television.

1. Connect your Mini VCR to your TV and/or stereo and enter the **Player** menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
2. Use the ▲ and ▼ buttons to highlight the **Image Browser** option and use the ⏯ button to confirm your choice. A list of displayable files and subdirectories will be displayed.

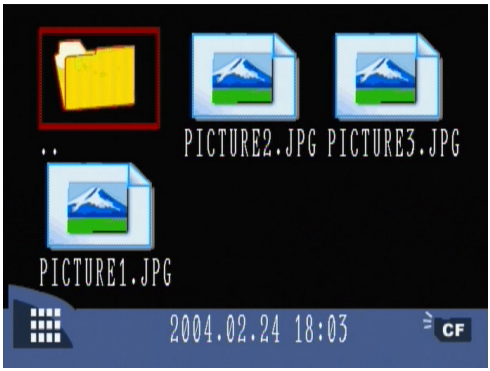


Image Browser

3. Use the ▲ and ▼ buttons to highlight the image you want to display and use the ⏯ button to confirm your choice.

While a file is being viewed, the following functions are available using buttons on the remote control:

⏪ and ⏩ Zoom out and Zoom In

▲ and ▼ Display the previous or next file in directory

⏹ Return to directory

3.4.1 Special Effects

Pressing the button on the remote control while an image is on screen, displays the **Image** menu along the bottom of the display.

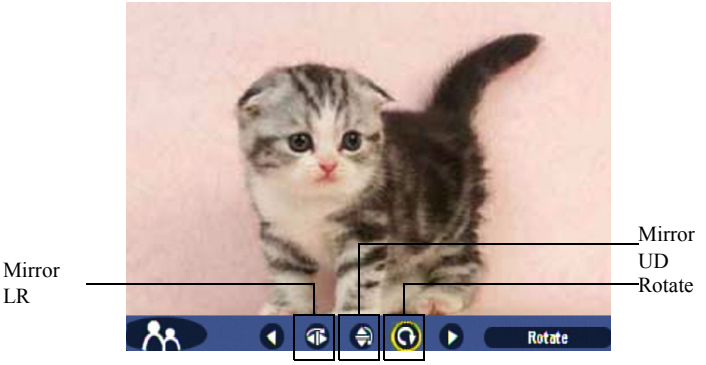


Image Menu

When the **Image** menu is displayed, the following functions are available using buttons on the remote control:

- Scroll backwards through **Image** menu
- Scroll forwards through **Image** menu
- Choose the currently selected item on the **Image** menu
- Close the **Image** menu

The Image menu enables you to modify your images and provides the following features:

File: Displays the **File Setup** menu. See **Image Browser Setup Menu, Section, 3.4.2**, on page 30, for details on how to use the functions in this submenu.

Scroll: Allows scrolling of a zoomed image. Use and to scroll left and right. Use and to scroll up and down. Press to turn off the scrolling feature.

Mirror LR: Creates a vertically-mirrored image.

Mirror UD: Creates a horizontally-mirrored image.

Rotate: Rotates the image 90 degrees clockwise.

Invert: Inverts the colors of the image. This effect is similar to creating a photo negative of the image.

Grayscale: Renders the image with no color information. This effect is similar to a black and white photograph.

Mono: Renders the image using only black or white. This feature is useful for adding an artistic touch to simple images.

Edge: Enhances the edges of the image. This feature is useful for enhancing the detail of an image.

Exposure: Adjusts the image to a more natural exposure.

Spectrum: Displays a spectrum analysis of the image. Press again to dismiss the analysis and return to a full screen display of the image.

3.4.2 Image Browser Setup Menu

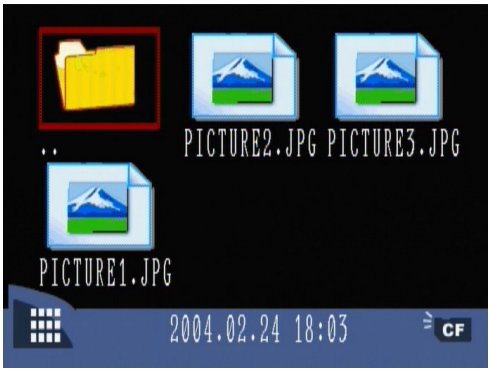


Image Browser

The Setup Menu for the **Image Browser** provides functions including slide, lock, unlock, delete, DPOF and copy selected or all images in a directory.

1. Enter the **Image Browser Setup** menu using the button on the remote control from the **Image Browser.**
2. Use the and buttons to highlight the required option.
3. Use the and buttons to toggle options for each selection.

4. Use the button to confirm your setup choice.
5. Use the button to return to the directory view.

3.4.3 Slide

Use the **slide** function to start a slide show of all still images or a pre-defined selection. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

1. Enter the **Image Browser Setup** menu using the button on the remote control from the **Image Browser.**
2. Use the and buttons to highlight the **Slide** option.
3. Use the and buttons to toggle between **Select** and **All** options.
4. Use the button to confirm your setup choice.

A slide show of the selected still images is displayed.

3.4.4 Lock and Unlock.

The **Lock** function is used to protect files from accidental deletion. The **Unlock** function is used to remove this protection.

1. Enter the **Image Browser Setup** menu using the button on the remote control from the **Image Browser.**
2. Enter the **Image Browser Setup** menu as described above.
3. Use the and buttons to highlight the **Lock** or **Unlock** option.
4. Use the and buttons to toggle between **All** and **Select** option.

Choosing the **All option** locks or unlocks all still image files. Using the **Select** option will lock or unlock just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

5. Use the button to confirm your choice.

3.4.5 Delete

The Delete option is used to delete all files or just selected files from the Image Browser. When files have been deleted they can not be recovered.

1. Enter the **Image Browser Setup** menu using the button on the remote control from the **Image Browser.**
2. Enter the **Image Browser Setup** menu as described above.
3. Use the and buttons to highlight the **Delete** option.
4. Use the and buttons to toggle between **All** and **Select** options.

Choosing the All option deletes all still image files. Using the **Select** option deletes just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

5. Use the button to confirm your choice.

3.4.6 DPOF

DPOF creates a DPOF file in the folder "MISC" at the root of the current storage media that can be used with DPOF-enabled devices.

DPOF stands for Digital Print Order Form and is used for ordering image files. Printers or software that support DPOF is used for searching and processing files ordered by DPOF.

The latest version of DPOF provides the following functions:

- Printing more than 1 image on a single piece of paper
- Zooming in or out on an image
- E-mail and fax functions
- Autoplay
- Unicode support

User commands such as **autprint.mrk**, **unicode.mrk**, **autxfer.mrk** and **autplay.mrk** can be included in HTML format. HTML files can then be stored in a **MISC** folder and viewed using word processor applications.

3.4.7 Copy File

Use the **Copy File** option to copy still image files to either the CF or SD card. This option is used to copy either all files or a predefined selection.

1. Enter the **Image Browser Setup** menu using the button on the remote control from the **Image Browser.**
2. Use the and buttons to highlight the **Copy File** option to enter the **Copy File** submenu.
3. In the **Copy File** submenu, use the and buttons to highlight the **Copy** option.
4. Use the and buttons to toggle between **All** and **Select** options.

Use the **All** option to copy all video files and use the **Select** option to copy a predefined selection of files. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

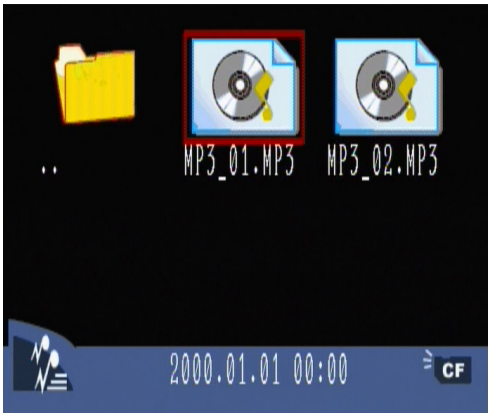
5. Use the button to confirm your choice.
6. Use the and buttons to highlight the **Copy to** option.
7. Use the and buttons to toggle between **CF** and **SD** options.
8. Use the button to confirm your choice.

The selected files will be copied to the chosen destination.

3.5 Using the Mini VCR to Play Audio

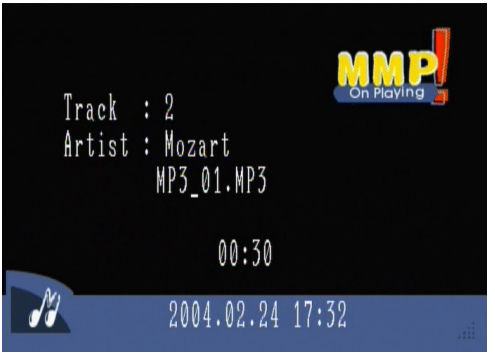
The Mini VCR can playback audio MP3 files. The Mini VCR is used to play MP3 audio files through headphones or a stereo system.

1. Connect your Mini VCR to your TV and/or stereo and enter the **Player** menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
2. Use the ▲ and ▼ buttons to highlight the **Music Player** option and use the ⏯ button to confirm your choice. A list of playable files and subdirectories will be displayed.
3. Use the ▲ and ▼ buttons to highlight the file that you wish to play or subdirectory.



Music Player

4. Use the ⏯ button to play the selected file.



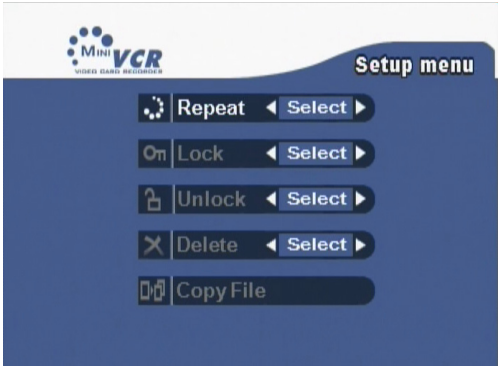
MP3

When playing an MP3 audio file, the following functions are available from the remote control.

- Pause
- and Fast Rewind and Fast Forward
- and Play previous and play next file in directory
- and Volume control
- Return to directory

3.5.1 Music Player Setup Menu

The Setup Menu for the **Music Player** provides functions including repeat play, lock, unlock, delete, and copy selected or all audio files.



Music Player Setup Menu

1. Enter the **Music Player Setup** menu using the button on the remote control from the **Music Player.**
2. Use the and buttons to highlight the required option.
3. Use the and buttons to toggle options for each selection.
4. Use the button to confirm your setup choice.
5. Use the button to return to the directory view.

3.5.2 Repeat

Use the **Repeat** function to repeat play all audio files or a selection. See **Section 3.1, "Accessing the On Screen Interface" on page 18** for details on how to select files. You can also play a random selection with the **shuffle** option.

1. Enter the **Music Player Setup** menu using the button on the remote control from the **Music Player.**
2. Use the and buttons to highlight the **Repeat** option.
3. Use the and buttons to toggle between **All, Select** and **Shuffle** options.
4. Use the button to confirm your choice

3.5.3 Lock and Unlock

The **Lock** function is used to protect files from accidental deletion. The **Unlock** function is used to remove this protection.

1. Enter the **Music Player Setup** menu using the button on the remote control from the **Music Player.**
2. Use the and buttons to highlight the **Lock** or **Unlock** option.
3. Use the and buttons to toggle between **All** and **Select** options.

Choosing the **All** option will lock or unlock all audio files. Using the **Select** option will lock or unlock just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

4. Use the button to confirm your choice.

3.5.4 Delete

The Delete option is used to delete all files or just selected files from the Music Player. When files have been deleted they can not be recovered.

1. Enter the **Music Player Setup** menu using the button on the remote control from the **Music Player.**
2. Use the and buttons to highlight the **Delete** option.
3. Use the and buttons to toggle between **All** and **Select** options.

Choosing the **All** option deletes all audio files. Using the **Select** option deletes just those files you have selected. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

4. Use the button to confirm your choice.

3.5.5 Copy File

Use the **Copy File** option to copy video files to either the CF or SD card. This option is used to copy either all files or a predefined selection.

1. Enter the **Music Player Setup** menu using the button on the remote control from the **Music Player.**
2. Use the and buttons to highlight the **Copy File** option to enter the **Copy File** submenu.
3. In the **Copy File** submenu, use the and buttons to highlight the **Copy** option.
4. Use the and buttons to toggle between **All** and **Select** options.

Use the **All** option to copy all video files and use the **Select** option to copy a predefined selection of files. See **Section 3.1.1, "Selecting files" on page 20** for details on how to select files.

5. Use the button to confirm your choice.
6. Use the and buttons to highlight the **Copy to** option.
7. Use the and buttons to toggle between **CF** and **SD** options.
8. Use the button to confirm your choice.

The selected files will be copied to the chosen destination.

3.6 Using the Mini VCR to Record Video

Your Mini VCR can record full screen video to either an SD card or a CF card.

NOTICE *When you record a movie, a folder called movie is created on your Mini VCR. Your recorded movies are stored in this folder automatically. If files other than recorded movies are put in this folder, they will not be accessible.*

1. Connect your Mini VCR to your TV and/or stereo and enter the **Player** menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
2. You will also need to connect a video input to your Mini VCR using the **AV IN** socket. This could be a video camera, VCR or DVD player. See **Section 2.1, "Making Connections" on page 5** for details on how to do this.
3. From the Player Menu, use the ▲ and ▼ buttons to highlight the **Video Record** option and use the ⏯ button to confirm your selection.

The Mini VCR will check memory availability before recording. If there is insufficient memory available, a "Device full" message will be displayed.

Recording From Video Camera or VCR.

You can view the video input before starting to record.

Video Record Monitor

4. Use the ● button on the remote control to begin recording.
5. Adjust the volume using the ▲ and ▼ buttons.
6. Use the ● or ▶/■ buttons to stop recording.

3.6.1 Video Record Setup

The **Video Record Setup** menu allows you to set the quality of your recorded video and the Auto Record duration.

Video Record Setup Menu.

1. Enter the **Video Record Setup** menu using the ☰ button on the remote control from the **Video Recorder.**

2. Use the ▲ and ▼ buttons to highlight the required option.
3. Use the ◀◀ and ▶▶ buttons to toggle options for each selection.
4. Use the ▶/■ button to confirm your setup choice.
5. Use the ⏻/■ button to return to the directory view.

3.6.2 Quality

The **Economic** quality setting will use the least amount of memory but the quality of the recording will be low. The **Fine** setting will use more memory but provide a better quality recording. The **Superfine** setting provides the best quality video but uses up a lot of memory. The **Normal** setting provides a balance between quality and memory usage that will be adequate most of the time.

Recording times

Card Size	Duration, Superfine Quality (1536 bit rate)	Duration, fine quality (1152 bit rate)	Duration, normal quality (576 bit rate)	Duration, economic quality (384 bit rate)
64 MB	5 min 41 sec	7 min 35 sec	15 min 10 sec	22 min 45 sec
128 MB	11 min 22 sec	15 min 10 sec	30 min 20 sec	45 min 30 sec
256 MB	22 min 44 sec	30 min 20 sec	60 min 40 sec	91 min
512 MB	45 min 28 sec	60 min 40 sec	121 min 20 sec	182 min
1 GB	90 min 56 sec	121 min 20 sec	242 min 40 sec	364 min

1. Use the ▲ and ▼ buttons to highlight the **Quality** option.
2. Use the ◀◀ and ▶▶ buttons to toggle between N**ormal, Economic, Superfine** and **Fine** options.
3. Use the ▶/■ button to confirm your choice.
4. Press the ⏻/■ button to return to the Player menu.

3.6.3 Auto Record

The **Auto record** function allows you to set the Mini VCR to record unattended for a preset length of time.

1. Use the ▲ and ▼ buttons to highlight the **Auto Record** option.
2. Use the ◀◀ and ▶▶ buttons to toggle between OFF, 30 min, 1 hr, 2 hr, or 4hr.
3. Use the ▶|| button to confirm your choice.

When recording starts, the Mini VCR will record for the preset length of time, or until it is stopped manually if the **Auto Record** setting is set to **OFF.**

3.7 Using the Mini VCR to record TV programs

Your Mini VCR can record TV programs to either an SD card or a CF card. There are two methods to record TV programs.

3.7.1 Recording from your television.

1. Connect the Mini VCR to your TV as described in **Section 2.1.2, "Connecting to a Television" on page 6**.
2. Enter the Player menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
3. From the Player Menu, use the ▲ and ▼ buttons to highlight the **Video Record** option and use the ⏯ button to confirm your selection.

The Mini VCR will check memory availability before recording. If there is insufficient memory available, a "Device full" message will be displayed.

4. Once the Mini VCR has been set up ready to record, switch the TV to the channel you want to record.
5. Use the ● button on the remote control to begin recording.
6. Use the ● or ⏯/■ buttons to stop recording.
7. Switch the TV back to AV input to view the recorded TV program. refer to **Section 3.3, "Playing Videos" on page 25** for viewing the recorded program.

..

NOTICE *You will not be able watch TV and record at the same time with this method.*

3.7.2 Recording from a TV tuner or VCR.

1. Connect the Mini VCR to your TV as described in **Section 2.1.3, "Connecting to a TV tuner or VCR" on page 7**.
2. Enter the Player menu as described in **Section 3.1, "Accessing the On Screen Interface" on page 18**.
3. From the Player Menu, use the ▲ and ▼ buttons to highlight TV Record option and use the ⏯ button to confirm your selection.

The Mini VCR will check memory availability before recording. If there is insufficient memory available, a "Device full" message will be displayed.

4. Select the TV channel to be recorded.
5. Use the ● button on the remote control to begin recording.
6. Use the ● or ⏯ buttons to stop recording.

Refer to **Section 3.3, "Playing Videos" on page 25** for viewing the recorded program.

3.8 Using the Mini VCR as a Card Reader

The Mini VCR can be used as a Compact Flash or Secure Digital card reader. Use the supplied USB cable to attach the Mini VCR to a PC as described in **Section 2.1, "Making Connections" on page 5**. On a Windows 2000/XP PC, the Mini VCR will add two removable drives to your computer, one for media in the CF slot and one for media in the SD slot.

You can browse and manipulate the contents of the media as you would with the contents of any other drive on your PC.

3.9 Viewing files on a pocket PC or mobile phone.

You can view images and other media files on your pocket pc or mobile phone as you normally would.

Pocket PC requires an Intel® PXA255 or higher processor in order to work. The bundled IVI Player software needs to be installed in order to play MPEG4 files (ASF format), as generated from the Mini VCR.

The mobiles, that have been tested are:

Brand	Model
Panasonic	P2102
	P515V

Appendix

Specifications

Photo Viewer	
Support Base-line	JPEG
Thumbnail picture display for EXIF file	
Rotation	90 degree x 4
Pan function to see the exact resolution of picture	
Digital Zoom	15 step from 1x to 2x
Slide show	Slide Selected files or All files
Image Processing	Horizontal Mirror Vertical Mirror Inverse Monochrome
Video Recording	
The video file format is ASF format	25 fps@ 352x240 pixel video resolutionVideo
Video Player	
MPEG4 decoding with G.726 audio. The video file format is ASF format	30 fps @ 352x240 pixel video resolution.
MPEG4(SP) with MP3	30 fps @ 320x240 pixel video resolution.
Audio Player	

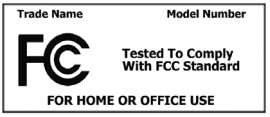
MP3	32KHz, 44.1KHz, 48KHz
AAC	32KHz, 44.1KHz, 48KHzu (option)
Storage	
Storage interface: Compact Flash card and SD.	
USB Host 1.1 to USB Flash Pen Drive	
File Copy	
CF to/from SD	Connect to USB pen driver or USB HDD
USB Pen Drive to CF or SD	
Connect to USB pen driver or USB HDD	
Others	
USB2.0 slave mode	Support mass storage class
Remote Control	12 keys
Audio/Video Input	
Audio/Video Output	
Power Adaptor DC Input	5Volt/1.5Amp
Dimension	
Dimensions	118mm x 87mm x 18mm

Upgrading the Firmware

1. Copy “main.hex” to the CF card.
2. Press to show the setup menu.
3. Use and to select “Upgrade” then press to confirm your selection.
4. Select “Yes” to begin the firmware upgrade.

The upgrade will take about 4 minutes to complete and a message will be displayed to indicate that the process has been successful. Turn the Mini VCR off, remove the power adapter and restart.

FCC Certification



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

You are cautioned that any change or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate such equipment.

Troubleshooting

Symptom	Possible Cause	Possible Remedy
No video display.	Unit has no power.	Refer to Chapter 2 to ensure that unit is plugged in correctly. You should see a green LED on the front panel.
	TV/PC switch set to PC.	Switch to TV.
	Cable connecting AV OUT to video monitor is not properly configured.	Refer to Chapter 2 for how to properly attach video output cable.
Remote control not functioning.	Remote control sensor on Mini VCR is obscured.	Ensure that a line of sight exists between the remote control and the sensor on the Mini VCR
	Low battery power.	Replace battery in remote control.
Media not recognized by Mini VCR	Media not inserted properly.	Refer to Chapter 2 for proper handling of Compact Flash and Secure Digital memory. Never force media into the Mini VCR.